March 2, 2000

Charles N. Jeffress
Assistant Secretary
Occupational Safety and Health Administration
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, D.C. 20210

Subject: Comments on the Ergonomics Program; Proposed Rule; 29 CFR Part 1910 (November 23, 1999); Docket No. S-777.

Dear Mr. Jeffress:

On November 23, 1999, the Occupational Safety and Health Administration (OSHA) published a Notice of Proposed Rulemaking (NPRM) for its Ergonomics program standard. The OSHA proposal would establish an ergonomics program for general industry, affecting 1.9 million employers and 27.3 million employees. OSHA proposed this action to reduce the risk of various work-related musculoskeletal disorders (MSDs) confronting employees in various jobs.

As you are aware, the Office of the Chief Counsel for Advocacy of the U.S. Small Business Administration (SBA) was created in 1976 to represent the views and interests of small businesses in federal policy making activities.[1] The Chief Counsel participates in rulemakings when he deems it necessary to ensure proper representation of small business interests. In addition to these responsibilities the Chief Counsel monitors compliance with the Regulatory Flexibility Act (RFA), and works with federal agencies to ensure that their rulemakings analyze and substantiate the impact that their decisions will have on small businesses.

The Chief Counsel also is a statutory member of the Small Business Advocacy Review Panel, which OSHA convened to review this rule as mandated by the Small Business Regulatory Enforcement Fairness Act (SBREFA). The panel submitted its report to you on April 30, 1999. Since that time, this office hosted an industry roundtable meeting, which you attended. As became clear at that meeting and through other discussions with concerned small entities and their representatives, there remains serious concern in the small business community about the rule's potential impact on small firms.

[1] Regulatory Flexibility Act, 5 U.S.C. § 601, as amended by the Small Business Regulatory Flexibility Act, Pub. L. No. 104-121, 110 Stat. 866 (1996).

Specific parts of the proposal have been identified by small business as costly and troublesome if not revised. Two such provisions are the 'one incident trigger' and 'worker removal protection' (WRP) requirements in the rule. In the comments that follow, Advocacy will review these and other concerns with the current proposal and provide potential solutions for reducing any potential negative impact this rule may have on our nation's small businesses.

We hope that these comments will be helpful to you as you continue to revise this significant proposal and we look forward to continuing to work with OSHA throughout the regulatory development of this rule.

Sincerely,

Jere W. Glover
Chief Counsel for Advocacy

Claudia Rayford
Senior Policy Advisor to the Chief Counsel

Comments on
OSHA's proposed Ergonomics Program Standard

by

The Office of Advocacy
U.S. Small Business Administration

March 2, 2000

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I. Progress Made/Problems Remain

The Occupational Safety and Health Administration's (OSHA) recently proposed Ergonomics program standard, published on November 23, 1999 for public comment, is an improvement on previous drafts of the regulation. The draft which was before the Small Business Advocacy Review panel, mandated by the Small Business Regulatory Enforcement Fairness Act (SBREFA), was criticized by the small entity representatives for, among other things, its lack of clarity and underestimate of costs. The SBREFA panel report indicated that small businesses had a vast number of concerns with the regulation under consideration at that time. Among those concerns was the confusion surrounding many of the terms and provisions of the rule. These sections in the current proposal show improvement and with further clarity will enable small businesses to comply with the regulation effectively. It is clear from this next version of the proposal that **the panel process works** and was quite helpful in highlighting major concerns of small businesses.

There is no question that employees need protection from these types of injuries. Advocacy is in support of OSHA's quest to address this issue as it performs its important mission of protecting employees from hazards in the workplace. However, in this case, OSHA is attempting to address a problem that arguably occurs primarily in businesses with a large number of employees in particular types of jobs and industries with a standard that regulates nearly the entire business population.

Clearly OSHA has been working hard at coming to grips with this very large regulation. **We want to commend OSHA for changes to the rule** which have resulted in a much clearer, easier to understand regulation. The proposed rule represents a few directionally sound improvements from earlier drafts of the rule. These improvements are a credit to the Small Business Advocacy Review panel process and to OSHA.

However, OSHA is not there yet. **The Office of Advocacy firmly believes that OSHA has not gone far enough** in its attempt to accomplish its goals and policy objectives while avoiding undue burden on small businesses. It is indeed difficult to strike the necessary balance and provide incentives that encourage employees to report their injuries as well as encourage employers to protect their workers. While this is admittedly a delicate balance, there are specific provisions which, if altered, would significantly reduce ergonomic injuries across this country while avoiding the placement of costly and unnecessary regulatory burdens upon small business owners.

In order to regulate the small business community effectively, it is important for OSHA to understand the nature of small businesses and how they operate. A key fundamental truth that is missing from the proposal is in fact that **small employers want safe workplaces**. A safe, healthy and productive workforce is an asset to small entities. The SBREFA panel members heard this clearly from small business owners during the panel process. Many small entity representatives, expressed this in their comments during the

SBREFA panel: "In a small company, every employee is important..."[2] "For over twenty years, we have treated our employees as our number one resource!"[3] "As small business owners, we take our responsibilities to our employees very seriously. We know that the ramifications of not running our businesses, effectively and efficiently, impact not just ourselves but each individual person in our employ.....Our responsibility to provide a safe and healthful work environment is important to us. Our employees are not numbers on a page or interesting statistics to us. We work side by side with them every day. We go to their weddings and their children's birthday parties."[4]

The entire premise behind this proposal ignores this basic distinguishing feature of small entities. Small employers emphasized this difference to the panel because they felt the proposal lacked this belief and was overreaching in its provisions.

> My workers are very important to me. Not only do I know these people and treat them as family many of them are family members. I am out on my shop floor every day, exposing myself to the same conditions as all [of my] employees. Obviously, I want a safe and healthy workforce. Employees in my industry are very hard to come by and to replace. We are already experiencing a shortage of skilled labor…why would I jeopardize my plants' productivity with an unsafe workplace? I wouldn't. I don't see why this rule needs to be another costly mandate on small firms especially when I haven't had any problems within my company.[5]

These comments reflect the **need for OSHA to be flexible in its approach to regulating the workplace**. The burden of government regulation has been felt heavily by small business. It is important for agencies to recognize the cumulative effect of the growing number of regulations upon small entities when it assesses the real world impact of a proposed rule. OSHA should take these important points into consideration both when drafting proposed regulations and when determining the effect it may have upon small entities.

II. The Scope of the Regulation is Unnecessarily Broad

The scope of the proposed ergonomics standard is too broad for three reasons: 1) MSD occurrence in small firms is low, 2) the proposal is not cost effective for small firms, and 3) MSDs are on the decline.

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[2] Written comments submitted by - Gary Neill, Consolidated Telephone in Lincoln, NE; p.5.; Note: All written comments quoted herein are part of the Small Business Advocacy Panel report submitted to OSHA and are therefore part of the official record of this standard.
[3] Written comments submitted by – Clifford Wilcox, Camellia City Services, Sacramento, CA; p.1.
[4] Written comments submitted by – Janet Kerley; Lead-Rite, Inc., Albuquerque, NM; p.1.
[5] Written comments submitted by – Roger Sustar; Fredon Corp., Mentor, Ohio, p.1.

A. MSD Risks for Small Businesses are Insignificant[6]

MSD risks for small businesses in general industry, for the most part, are at or below 1 lost-workday [MSD] per thousand employees per year. Relative to the average risk faced by general industry employees, the risk faced by employees in small business is very low. For example, the proposal states that the average risk of incurring a lost workday MSD for all general industry employees covered by the Bureau of Labor Statistics data was 7.1 per thousand employees per year in 1996, which have been adjusted to account for underreporting MSD incidence by small firms.[7] This risk figure is an appropriate basis for comparison because it is the baseline risk against which OSHA assesses the effectiveness of the proposed ergonomics rule. OSHA predicts that the proposed ergonomics rule would, within 10 years, with 100% compliance, lower that baseline rate by 26%. The resulting general industry lost-workday MSD risk level would then be 5.3 incidences per thousand employees per year.

However, the baseline risk which employees in most small firms face is **already 5 times lower** than the average risk general industry employees will face after 10 years of 100% compliance with the proposed ergonomics rule! Clearly, **the small business baseline risk** level of 1 lost work day related MSD per thousand employees per year **reflects a level of safety performance that the rule itself does not expect to achieve.**

Expected risk reduction for employees at small firms is substantially less than those faced by employees at large firms. Because small businesses have small numbers of employees, the expected reduction in incidence with an ergonomics rule may not be within the 10-year time frame that OSHA has viewed as plausible for the risk assessment and economic analysis. For example, a 10 employee firm with a 2 MSD incident per 1000 employee risk level per year adopting the full program, would have a reduction of 1 expected incidence. However, statistically this reduction might not occur for **50 years!**[8]

Given this low level of occurrence of MSDs in small entities, OSHA should reduce the scope of the regulation to cover those industries and businesses which are truly the culprit; rather than create a costly rule which is overreaching in its applicability.[9]

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[6] *See* Appendix B for a related discussion of OSHA's overstatement of the anticipated MSD reduction as a result of the proposed regulation.

[7] Fed. Reg. at p. 66040.

[8] That is 5 times longer than OSHA's 10-year analytical window. In their preliminary economic assessment, OSHA discounts future estimated benefits to account for time difference in the receipt of the benefits. If, for example, the cost of an expected MSD were $3000 dollars today, the present value of that expected reduction and cost savings 50 years hence using the 7% OSHA/OMB discount rate would be $102. Thus, the present value of the expected incidence reduction is 29 times less than its future value. A complying 1000 employee firm with a 2 MSD baseline risk would generate those cost savings today. Consequently, the present value of the baseline and post control risk for a small firm is substantially less than that for a large firm.

[9] "Small businesses who are exempt from recordkeeping requirements due to their minimal accident and illness rate, should [ ] be exempt from the requirements of the draft Ergonomic Standard or be subject to a program that reflects both the actual size of the business and their actual ergonomic illness experience rate." Written comments submitted by William M. Kelley, Jr.; Bragdon-Kelley-Cambpell Funeral Home; Ellsworth, Me; p. 2.

B. The Proposal is Cost Ineffective for Small Business

As we heard from the majority of the small entity representatives to the SBREFA panel, OSHA's previous draft ergonomics program standard would be extremely costly to small business owners. Admittedly, OSHA has revised upwards its previous cost estimates to $4.2 billion. However, Advocacy continues to believe that these costs are not only *under*estimated, they clearly indicate that **the proposed ergonomics program standard is cost ineffective** for small business.

In recent years, **small firms appear to have been overwhelmed by the cummulative and constantly changing mass of federal, state, and local regulations**. This is why Congress requested that the Chief Counsel for Advocacy complete a "study of the impact of all Federal regulatory, paperwork and tax requirements upon small business..."[10] In that study, the regulatory cost per employee to small firms was determined to be 50 percent more than the cost to large firms. The study further determined that small businesses employ 53 percent of the work force, but shoulder 63 percent of the total business regulatory costs. "This inequitable cost allocation gives large firms a competitive advantage, a result at odds with the national interest in maintaining a viable, dynamic, and progressive role for small businesses in the American economy."[11]

The ergonomics program standard proposal, based on Advocacy's evaluation of OSHA's impact analysis (See Appendix A), would be extremely cost ineffective for a small business, especially given the rare occurrence of MSDs in small firms. Small entity participants expressed grave concerns regarding the potential cost of this proposal and were nearly unified in their opinion that those high costs would be felt more severely by small entities. "If this standard is implemented as currently drafted, many businesses will pack up and move out of the country," said one small business owner.[12] He continued to say that he was "afraid that the ergonomics program standard would weaken this country's economy by forcing small companies overseas or, worse yet, out of business."[13]

Whether this flight risk is real or not is not the issue. The issue is the credibility of government data and whether the agency understands the economic impact of the ergonomics proposal on small entities. Therefore, OSHA must continue to refine its cost

[10] In the fall of 1995, the Office of Advocacy submitted to Congress: The Changing Burden of Regulation, Paperwork and Tax Compliance on Small Business: A Report to Congress. A major resource for that study was another report commissioned by Advocacy: *A Survey of Regulatory Burdens,*(Research Summary attached), authored by Thomas D. Hopkins, Rochester Institute of Technology, a leading researcher in quantifying the impacts of regulations on business, especially small business. In brief, Advocacy reported to Congress that the total regulatory cost projected for 1999 would be $709 billion, with one-third of this cost attributed to "process" costs - primarily paperwork. Advocacy further reported that the average annual cost of regulation, paperwork and tax compliance to small business is 50% higher than for large business - actual dollar costs amounting to about $5,000 per employee per year.

[11] The Changing Burden of Regulation, Paperwork, and Tax Compliance on Small Business a Report to Congress; Office of the Chief Counsel for Advocacy, U.S. Small Business Administration, Washington, DC October 1995.

[12] Written comments submitted by – Roger Sustar, Fredon Corp., Mentor, OH; p 2.

[13] Id. p. 3.

estimates of this proposed regulation, especially in the areas detailed in Section III of this document. This will result in a more accurate reflection of the actual impact upon small business. It will also enable OSHA to tackle the problem of MSDs by pinpointing those industries most in need of regulation and addressing them with an effective solution.

C. MSDs are on the Decline

OSHA is proposing this standard to address MSD injuries - "the largest job-related injury and illness problem in the United States today."[14] However, the Bureau of Labor Statistics (BLS) data indicate there has been a 24% decrease in the number of MSD injuries over the last 4 years (adjusted for underreporting by small businesses).[15] This **steady decline in the number of MSD injuries** has occurred without government regulation. Our nation's workplaces are becoming safer for our employees[16] Employers have begun to recognize the value and importance of a safe workplace.[17] Again, this is the very nature of a small business. Based on the data , without an ergonomics program standard, we have seen, and should continue to see, the number of MSD's declining over time. Secretary Alexis Herman recently noted that "[w]orkplace injury and illness rates declined for the sixth year in a row. That's good news for American workers and for American employers...Since 1973, occupational injury and illness rates have decreased 40%...Employers and workers are making job safety and health the top priority it has to be."[18]

These facts continue to lead many small entities, as well as the Office of Advocacy, to one important question – Is this $4.2 billion (using OSHA's cost estimates) government regulation really necessary to achieve OSHA's anticipated reduction in the level of MSD injuries in the workplace?

Many small entity representatives to the panel even **questioned the need for an Ergonomics regulation**. Some advised the panel that they felt the most effective alternative to the draft proposal would be no rule at all. They strongly believed that,

[14] Fed. Reg. at p. 65769.
[15] Bureau of Labor Statistics, U.S. Department of Labor, December 1999, Table: Nonfatal occupational illnesses by category of illness, private industry, 1994-1998; Disorders associated with repeated trauma.
[16] "The rate for cases with days away from work has declined for eight years in a row and...was the lowest on record." U.S. Department of Labor, Bureau of Labor Statistics Press Release; Workplace Injury and Illnesses in 1998 (12/16/99).
[17] "We are most pleased by the latest occupational injury and illness statistics...the lowest since the Bureau of Labor Statistics (BLS) began reporting this information in the early 1970s. The improvement is particularly impressive in a booming economy when many new and inexperienced workers are coming into the workforce. Historically, new employees have been more likely to get hurt on the job than more experienced workers. Much of the credit for the improvement can be attributed to millions of employers and employees working every day to eliminate on-the-job hazards.... Over the past several years, we also have measured results, where possible, by real improvements in the lives of working people, such as reduced injury and illness rates. The...decline in injury and illness rates is evidence that this combination of approaches is working." Statement by Charles Jeffress, Assistant Secretary for Occupational Safety and Health U.S. Department of Labor before the Subcommittee on Employment, Safety and Training; Health, Education, Labor and Pensions Committee; United States Senate; March 4, 1999.
[18] U.S. Department of Labor, Office of Public Affairs Press Release; Statement by Labor Secretary Alexis M. Herman on 1998 Workplace Injury and Illness Rates (12/16/99).

coupled with substantial outreach and compliance assistance, the distinguishing nature of small businesses would lead to safer workplaces for their employees without the need for government regulation. Those that could not cite a single MSD injury in their company that would have fallen under this regulation were concerned that a rule was unnecessary. Others felt it was not needed because 1) the General Duty clause already covers such injuries and 2) the number of MSD injuries has been on steady decline. This strongly suggests that OSHA should consider a "no regulation" option. In the alternative, OSHA should consider an exemption from the rule for those industries, or types of jobs were an MSD injury rarely occurs. Employees in any industry exempted from the rule would remain covered by the General Duty clause of the OSH Act when, and if, an MSD injury occurred. We urge OSHA to re-evaluate these important alternatives and consider that small businesses need a helping hand to ensure the safety of their workers, not a federal mandate.

IV. Costs are Underestimated[19]

Although OSHA has increased its estimates of the cost of this rule to $4.2B, **the actual cost of compliance with** the proposed ergonomics program standard for the average small business **still appears to be underestimated significantly.** A number of concerns regarding the underestimated costs of the rule, many omitted costs, the broad scope of the regulation, and questionable assumptions indicate a need for OSHA to revise its cost and benefits sections of the economic analysis very carefully. This is needed in order to reflect more accurately the true economic impact on small entities. Until this is done, this proposal and its supporting analysis will remain open to challenge.

The original proposal failed to include a number of necessary expenditures in its calculations of average costs to employers. Thus, an analysis by Advocacy's outside economic consultant of OSHA's previous cost estimates and regulatory flexibility analysis showed actual costs of the ergonomics rule could be significantly higher.[20]

Although OSHA has now revised its calculations upwards and included additions for such things as the cost of a consultant and additional hours for determining hazard analysis and control, **the actual experience and estimation of small employers still has not been adequately accounted for**. Factors such as the 1) number of times a small entity will actually need the services of an expert (as opposed to the needs of a large establishment); 2) the increased prices of such expert services as a result of this rule; an increase in the number of MSDs reported as a result of this rule; 3) the combined burden on small employers of multiple OSHA regulations; and 4) the substantial administrative costs associated with provisions such as the worker removal protection (WRP) provision.

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[19] This section outlines a number of important costs which Advocacy feels have not been fully accounted for in OSHA's estimates and which will significantly increase the average cost of this proposal for a small business. For a more detailed analysis of OSHA's Initial Regulatory Flexibility Analysis and OSHA's assertion of economic feasibility, see Appendix A.

[20] "PP&E estimates that the costs of the proposed standard could be anywhere from 2.5 to 15 times higher than those estimated by OSHA." *Analysis of OSHA's Data Underlying the Proposed Ergonomics Standard & Possible Alternatives Discussed by the SBREFA Panel 3/2/99-4/30/99*; prepared on behalf of SBA's Office of Advocacy by Policy Planning & Evaluation, Inc., September 16, 1999; at p.47.

These omitted expenses have generated OSHA cost figures that *under*estimate the burden on small business.

A. Need for Outside Expertise

As many of the small entities informed the panel, "OSHA needs to remember that micro-employers…, unlike large employers, don't have safety and health officers on staff."[21] It is likely that **many small businesses will need assistance** understanding the rule and determining whether it applies to them. OSHA Administrator, Charles Jeffress, has been quoted as disagreeing that the rule itself will be costly and time consuming to read and understand; claiming that the pertinent parts of the rule are actually only 50 pages in length. He asserts that the other 260 pages in the Federal Register are merely for clarification and assistance in understanding the 50 pages. Needing 260 pages of explanation for a 50 page rule seems to be clear confirmation that small businesses will not only have to spend time understanding the rule, but will need outside assistance to do so.[22] There is a cost connected with familiarization and understanding of the rule. Refusing to recognize this underestimates the overall cost impact on small entities. [23] (See also Appendix A).

MSD injuries are not easily assessed to determine their nature, severity, cause and strategy for elimination. As there are no "off the shelf" fixes for these types of injuries, each one will require detailed and customized consultation and analysis in order to determine the source of the problem and the best way in which to fix it so that the MSD hazard is controlled. Even if "off the shelf solutions" exist for some types of MSD injuries, OSHA must remember that small business owners usually cannot take off the shelf solutions to workplace problems. Each owner will require assistance to be able to determine what the best solution to each problem may be.

One small entity explained the need for outside expertise in this manner: "Small employers that I have attempted to discuss ergonomics with are only minimally familiar with [ergonomics] concepts, at best. **Small businesses generally do not have professionals on staff** who are capable of analyzing jobs and providing controls without outside assistance."[24] "Many small employers do not have the expertise or more importantly the time to complete an accurate job description or job hazard analysis – they must rely on outside contractors."[25]

Although the proposal now allows for 16 hours of consultant's time at $2000, this is not the actual cost that a small employer is likely to face. Advocacy has heard from

[21] Written comments submitted by Connie M. Verhagen, D.D.S.; Muskegon, MI; p.3.
[22] The length of this proposal, 310 pages in the Federal Register, is equivalent to that of a novel. A novel is a no-risk activity; as opposed to a complicated federal regulation which could mean costly compliance for a small employer. OSHA estimated in Table VIII-7 of the proposal that it would take an employer only one hour to review the standard and determine applicability of the rule to their business. We challenge OSHA to read a 310 page novel in an hour.
[23] *See* Appendix A, page A-2 and A-3 for a further discussion on Familiarization Costs.
[24] Written comments submitted by Jo Spiceland; Charleston Forge, Boone, NC; p.2.
[25] Written comments submitted by Victor Tucci; Three Rivers Health & Safety, Inc., Pittsburgh, PA; p.3.

numerous businesses that they will need this expertise every step of the way in their ergonomics program. Small firms will be burdened with the costs of needed consultants throughout the design of their ergonomics program, its implementation, and the required ongoing evaluation. Without a realistic analysis of this expense, OSHA cannot hope to assess accurately the impact of this rule on a small employer.

B. Increase in Demand for All Things Ergonomic

In addition to the omitted costs of additional consultants needed throughout the ergonomics program, the **proposal fails to consider an employer's expense related to the bottleneck which will be created once the demand for these expert services increases as a result of this rule.** "Agencies that provide complimentary or inexpensive professional assistance, such as OSHA Consultative Services and insurance carriers, will be stretched beyond their limits when asked to assist small businesses in complying with the proposed standard."[26]

Other private sector ergonomists will be accordingly inundated with evaluation requests. This limited supply and increased demand will surely drive up the price for such services. With the limited availability and the expense of much needed expertise, small entities will feel the brunt of the dilemma in the form of higher costs for them to establish and maintain their ergonomics program. Although OSHA believes that ignoring any potential change in demand or supply when estimating costs is the "least speculative and least controversial way of presenting the benefits and costs of the proposed standard,"[27] this is not a choice that a small business will be able to make. The very real and expected increase in demand of all things "ergonomic" will be a very real cost that will be more heavily felt by a small business. A rational assumption in the increase of these costs to small business should be made. It is imperative that OSHA revise its cost estimates to account for this very real impact of its proposed ergonomics regulation on small employers.

C. Increase in the Number of Reported MSDs

Another very important cost that was omitted from OSHA's estimate is the expected increase in the number of MSDs that will be reported as a result of this rule. OSHA's proposal correctly reports that "many small entity representatives were concerned that the proposed standard would result in significantly increased reporting of MSDs."[28] Putting aside for a moment the issue of any potential fraudulent MSD claims, it is important to recognize the probability that this rule will increase the number of reported MSDs. As the panel members heard from the small entity representatives who had an ergonomics program in place, once a company institutes an ergonomics program, employees feel free to report MSDs about which they were previously silent. However, OSHA claims that even if the number of MSDs reported increased by 50%, costs would increase to

[26] Comments made by Janet M. Kerley; Lead-Rite, Inc., Albuquerque, NM
[27] Fed. Reg. at p. 66002-3.
[28] Fed. Reg. at p. 66039.

employers by 24%, while benefits would increase by 66%.[29] Based upon this assumption, **OSHA did not account for any potential increase in the number of reported MSDs in its cost estimates of the standard**. Advocacy believes this to be an omitted cost which should be properly reflected as part of the economic impact of the rule on small employers.

Although OSHA's figures reflect a greater benefit than cost of any potential increase in MSDs, a critical consideration in the comparison of these costs and benefits is the timing – i.e. when a small business will incur the cost vs. when they are expected to realize the benefit. This is especially important given that **MSDs occur less frequently in small firms.** The proposal states that most of the benefits of the proposed standard will be generated after employers fix their problem jobs, thereby reducing the number of covered MSDs these jobs may cause at a later point in time.[30] However, OSHA also admits, "many of the benefits of ergonomics programs do not accrue directly to smaller employers."[31] A small employer in an industry that averages 1 or 2 reported MSDs within their company over a 10 year period could easily never see the longer term benefits associated with the hazard control expense related to those MSDs.

Firms with large numbers of employees will realize the benefits of corrective action sooner than those with fewer employees, merely because the size of the large firm means they have a greater number of employees at risk for an MSD injury. However small employers with a smaller workforce will not recoup the benefit of a detailed ergonomics program for a longer period of time, if at all. "As a small business owner, if I can't recover costs or relative economic benefit within 3 to 6 months, the initial costs of implementation could impact my cash flow so significantly that I won't be in business 8 to 10 years from the OSHA projected realization of economic benefits."[32] The issue here is the imposition of the overall cost of a detailed ergonomics program, versus a regulatory approach that is flexible while ensuring benefits to injured employees.

Another cost associated with a rise in the number of reported MSDs as a result of this rule is that of **administrative costs from employees who attempt to claim an MSD injury**, but for whatever reason are not recognized as having a work related MSD under this standard. The time away from work to visit the health care professional, the administrative recording of the activity and any potential disagreements and follow-up with that employee should be included in the calculations.

Small entities were also concerned that certain provisions of the proposal would lead to employee fraud, thereby increasing the number of MSDs that would be reported as a result of this rule.[33] OSHA does not believe that the proposed standard will encourage an

[29] *Id*.
[30] Fed. Reg. at p. 66001.
[31] Fed. Reg. at p. 66044.
[32] Written comments submitted by Janet M. Kerley; Lead-Rite, Inc., Albuquerque, NM; p.7.
[33] "...this standard will also perpetuate ongoing workers compensation fraud." Written comments submitted by Gary Fisher; Whiting Distribution Services, Inc., Detroit, MI; p.4.; "Our estimates strongly suggest that this program will actually increase the number of MSDs by as much as 20% due to the

increase in employee perpetrated fraud or that such fraud will affect the standard's costs or benefits.[34] OSHA bases this belief in part on the assumption that the work restriction protection (WRP) provision of the standard is triggered only when the employer—not the employee—makes the determination that WRP is necessary.

However, **OSHA's belief that any potential employee fraud is preventable by the employer making the determination that the injury is a work-related MSD, is misplaced**. The nature of the MSD injuries is quite different than those that are easily discernible, e.g. broken bones, cuts, bruises, etc. "Musculoskeletal pain is hard to prove...Backaches are like headaches, if you have it you know it, but there is no conclusive physiological method of proof that the person is or is not experiencing pain."[35] The issue is not that an employee will make a fraudulent claim. Rather it is that neither the employer nor the health care professional will be able to make that determination. An employer is left in an untenable position, which in reality leaves them no choice. They can challenge the employee's claim of an MSD and refuse to provide them work removal protection. This would open the employer up to further potential liability from employee complaints, law suits, and OSHA fines for violation of the ergonomics standard. Given that choice, most small employers would choose to incur the cost of the program and the WRP in order to avoid a lengthy battle with their employee. How is an employer supposed to make that determination when a health care professional (HCP) must also take the employee's word for the level of discomfort that they are experiencing? For OSHA to ignore the real potential for fraud as a result of this rule and not include it as an potential cost of the program, is to underestimate the actual cost to employers.

D. Administrative costs of the WRP Provision

The proposal also **fails to recognize the increased administrative costs** associated with the worker removal protection (WRP) provision. The increase in the number of MSDs reported, the investigation and record keeping involved in tracking each MSD injury, evaluation, and control, as well as the very expensive and time consuming problem of challenged, disputed and litigated MSD cases. Many employees will claim that they should have, continue to need, or were denied WRP. These employees will most likely seek differing opinions from health care professionals other than that given by the employer's HCP. This will entail many hours in administrative duties until each case is resolved. The proposal's analysis should be revised to consider this real cost to small business owners.

E. Burden of Multiple Regulations on Small Business

The increasing cumulative regulatory burden on small business cannot be overstated. Research has shown that this burden is disproportionately costly. Sound public policy

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incentive to report and the inability to dispute or confirm cause and effect." Written comments submitted by David Mittlefehldt, Prior Aviation; Buffalo, NY; p. 4.

[34] Fed. Reg. at p. 66039.

[35] Written comments submitted by Victor M. Tucci; Three Rivers Health & Safety, Inc., Pittsburgh, PA; p. 3.

needs to mitigate this inequity through creative regulatory solutions that do not compromise public policy objectives. In the case of the ergonomics program standard, **OSHA must recognize that the other existing, proposed and pre-proposed regulations will all take a heavy toll on a small employer**. OSHA's regulatory agenda must be considered when anticipating the economic reactions of a small employer. These rules cannot be analyzed in a vacuum. Real world reactions and economic burden on small entities need to be addressed.

IV. Troublesome Provisions Remain

Although changes have been made to the proposal since the Small Business Advocacy Review panel was held, the **Office of Advocacy is concerned about four provisions within the proposal that are potentially burdensome to small business**. Advocacy continues to believe that an ergonomics program trigger of one MSD is too low a threshold for small employers. In addition, the practical effect of the Quick Fix provision should be carefully examined to ensure that its intent is met and impact is measured accurately. Another continuing concern is the choice of controls permitted to be used by an employer when they are controlling a potential MSD hazard. Finally, the very costly work removal protection (WRP) provision should be closely scrutinized to ensure its effectiveness and usefulness within a small business. This provision remains one of the most harmful requirements of this proposal, while its necessity is still in question.

A. One Incident Trigger is Too Low

Of major concern to small businesses, as indicated by both the Small Business Advocacy Review panel and outreach done by the Office of Advocacy, is the provision which would require the expense of complying with the full Ergonomics program requirements, after just one MSD has occurred in a job. (The trigger). Representatives to the panel stated that they felt this standard would be extremely costly to small employers and that OSHA's cost estimates were significantly underestimated. "**Using one MSD event as a program trigger will unjustly penalize small employers**...[and] unnecessarily punishes small entities, compared to larger companies with more resources and flexibility."[36] One way to reduce this substantial burden on small businesses, is to increase the trigger event to a 2nd MSD in the same job. "One injury can be an isolated incident."[37] For many small businesses this 2nd trigger would never occur, thereby enabling them to avoid the cost of the full Ergonomics program all together. For another substantial category of businesses, a 2 MSD trigger would delay these costs for long periods of time – 6 years in many instances. One small employer told the panel, "...I fear that employers will be subject to fraudulent or exaggerated claims. If OSHA used at least 2 WMSD's to trigger employer action, it would help protect employers from the impact of these false claims."[38]

[36] Written comments submitted by – Gary Fisher; Whiting Distribution Services, Inc., Detroit, MI; p.2-3.
[37] Written comments submitted by – Roger Sustar; Fredon Corp., Mentor, OH; p.2.
[38] Written comments submitted by – Jo Spiceland; Charleston Forge, Boone NC; p.2.

Although the most recent proposal now contains a Quick Fix provision, this option can only be used where the employer can demonstrate that the MSD hazard is unique to the employee; such as a very tall employee. It is difficult for small employers to ascertain the exact causes of an employee's complaint. They do not have the on-staff expertise to assist them in identifying causes and recommending appropriate solutions. It will be a rare event in a small business when a determination is made that an MSD hazard can be easily identified as one that is a unique problem of the employee.

Due to the nature of small businesses as well as the interchangeable job activities that occur within small entities, many employers could find themselves faced with an MSD that would trigger the full cost of the program, merely because employees rotate through different jobs or perform similar jobs. Those employers would then be responsible for the full cost of the program even though a 2nd MSD may not have occurred in their company for many years, if at all. The proposed ergonomics program standard is a very costly regulation which would predominantly be borne by small business. OSHA must continue to find ways to accomplish their goals while reducing this enormous burden. A 2 MSD trigger would be a big step toward doing just that.

B. Quick Fix Option Needs Revision & Clarification

OSHA has created a new provision, which attempts to aid small employers in avoiding the cost of the full ergonomics program. This Quick Fix provision will allow an employer to control an MSD hazard in a job within 90 days if it can be determined that the MSD hazard only poses a risk to that one employee. However, the specifics of this option entail difficult determinations for small employers to make. The proposal states that "[t]he Quick Fix option is designed for those problem jobs where the hazard can be readily identified, the solution is obvious, and the solution can be implemented within 90 days after the covered MSD is identified."[39]

The term "readily identified" will have the effect of limiting the use of this important option for many small businesses. As previously stated, small employers do not have the expertise, nor the resources available, to make such determinations of these complex ergonomic injuries and their causes. Mainly because these are the type of injuries which are not readily identified nor is their cause quickly ascertained. Small employers have advised us that the occurrence of "readily identifiable" injuries are few and far. A large employer will have the resources and expertise on hand to make such a determination quickly and will therefore be able to use the Quick Fix option frequently for different jobs. Conversely, small employers will be saddled with the costs of the full program because they will not be able to make an immediate determination that the solution is obvious, or even identify the offending hazard. This could be true even though the hazard is readily identifiable to an on staff ergonomist in a large firm. Without on-staff expertise, a small employer is not likely to be able to make this decision accurately in order to take advantage of this cost saving option. This type of limiting language must be carefully crafted to accomplish OSHA's goal of enabling an employer

[39] Fed. Reg. at p. 65792.

to fix an isolated problem, while not being so specific that it prevents the use of this important provision by those that need it most – small business owners.

The Quick Fix option also limits the one small business exemption which exists within the ergonomics program standard proposal. Section 1910.939 of the proposal allows a very small employer with less than ten employees to avoid the record keeping requirements of this standard. While it is arguable that this is not a true exemption because many of them will keep records anyway in order to prove compliance, this exemption is reduced by the Quick Fix option provision itself. This option states that an employer must keep records of the Quick Fix controls they implement, when they are implemented and the results of any evaluations.[40]

We cannot imagine that OSHA's intention was to eliminate the one exemption that they have provided for small business. Yet that is the effect of this provision within the Quick Fix option. Advocacy strongly recommends that the language within this option be clarified to indicate that employers with less than ten employees do not need to keep records for any provision in the standard. Without this clarification, the option is not a real one for small business and will have the affect of mandating compliance with the total rule for employers with less than ten employees.

C. Hazard Control Should Allow All Solutions

Section 1910.920(b) of the proposal provides that personal protective equipment (PPE) "may only be used alone where other controls are not feasible." The standard would require an employer to utilize engineering controls to eliminate or substantially reduce MSD hazards in cases where these controls are feasible. **For a small employer, engineering controls are the most costly option for remedying the problem**. Examples of engineering controls that OSHA provides as ways to address ergonomic hazards are workstation modifications, changes to the tools or equipment used to do the job, facility redesigns, altering production processes, and/or changing or modifying the materials used. All of these options would be more costly for a small employer to implement, than one with the resources to undertake such projects.

OSHA asserts that only engineering controls eliminate the problem once and for all. While this may be a true statement for the majority of ergonomic hazards today, it does not speak for the potential of competitive market factors and industry innovation to create less costly PPE solutions which are a real fix for certain MSD hazards. Clearly there are some methods of PPE which both OSHA and NIOSH agree are ineffective in preventing certain MSDs. (ex. Back belts and wrist braces). However years ago these devices were thought to be a potential solution to back and wrist pain. The field of Ergonomics is ever changing and no one can say for certain today what means or device will be discovered or invented that may entirely eliminate an ergonomic hazard. Even OSHA admits that there exists a "rapidly changing area of ergonomics control technology."[41] It is precisely because there are so many differing opinions, consultants, studies, etc., **that OSHA**

[40] Fed. Reg. at p. 65793.
[41] Fed. Reg. at p. 65831.

should allow for new technology to solve many of the these problems by the creation of differing types of solutions – including an effective use of personal protective equipment. To preclude any one kind of remedy at this stage is premature.

Advocacy agrees the goal should be to eliminate the MSD hazard and avoid the ergonomic injury. If an employer does this through the use personal protective equipment, administrative controls, or by using engineering controls, and the MSD is controlled, this should satisfy OSHA's overall policy goal. **Small employers must be allowed to choose those solutions which work best for their employees** in their particular situation and industry without being mandated to choose the most costly option, when an effective, less costly alternative exists. Advocacy suggests that OSHA consider revising this provision to allow for such changes in technology, while identifying specific types of controls that are unacceptable (such as back belts) in specific guidance that accompanies this rule.

D. Necessity of WRP

One of the most costly elements of this standard can be found in the Work Restriction Protection provision (WRP). This provision requires an employer, among other things, to retain 90% of an employee's salary and benefits up to 6 months, upon a finding by a health care professional that time away from work is necessary. As the panel heard, a **WRP provision could mean financial hardship for some small businesses** having to provide this type of costly protection to even one employee; while a second employee on WRP could bankrupt the business.[42] "...[S]mall businesses are infinitely more sensitive to the economic an emotional impact of losing a valuable employee's services. The loss of one employee for 30 days can potentially threaten an entire small business. Small businesses generally respond quickly, out of necessity for survival, with thorough common sense preventative programs and a sincere desire to return a worker to the job."[43] The WRP requirement "is, by far the single most burdensome provision of this standard...It is not an overstatement to suggest that this requirement alone could mean the difference between success and failure for very small...[businesses]."[44]

Advocacy does not agree with OSHA that this provision is necessary to provide an incentive to employees, nor do we believe it strikes an adequate balance between an employee incentive to report and an employer incentive to provide a safe workplace. OSHA's rationale for WRP has centered around its desire to protect workers from continuing to work despite injuries out of fear for loosing any part of their salary, or even their job. OSHA points to other standards containing WRP provisions and even one in which WRP was mandated. However, those standards can be distinguished from the characteristics of the ergonomics standard. The Lead and Formaldehyde standards involved a hazard within a limited number of industries, as opposed to the ergonomics

[42] One example can be found in the comments of Connie Verhagen, "For a small dental practice like mine, the cost of double-coverage of a licensed clinical position (e.g. dental hygienist) for as long as six months would be ruinous." Written comments, page 2.
[43] *See* comments by Gary Fischer, p. 3.
[44] *Id*. at p. 8-9. See Also written comments by David Mittlefehldt, p.6 – "The cost of mandatory medical removal protection would economically devastate our industry."

proposal, which covers all of general industry. Further, in those cases, a WRP type provision was "crucial to the standard" because there was substantial evidence and "undisputed testimony that in the absence of [WRP], workers would underreport symptoms..." Evidence had been presented which showed that WRP was "essential to maximize meaningful worker participation" in the program.[45]

There is no such overwhelming evidence in the case of employees reporting MSD injuries. In its proposal, OSHA points to 7 comments that described employees who currently don't report MSDs for fear of job loss, etc. However, there is no evidence that once an ergonomics program has been established in a company, employees would then be afraid to report their MSD injuries. In fact, one small business representative (Sequins, International, Inc.) told the panel that his company substantially reduced their ergonomic injuries without a 90% pay incentive of a WRP provision. His employees felt comfortable to report their concerns and injuries, because management announced that these types of injuries are an important concern that shouldn't be overlooked. It is the Management Leadership component of the program that will have the most impact on employee reporting. OSHA should encourage employers to have a safe workplace, not encourage employees to report injuries which may or may not exist, by providing an incentive to stay home from work with pay for up to six months.[46]

OSHA also points to comments received on other health standard rulemakings which show that a form of WRP is necessary for employee reporting. Advocacy believes that the nature of ergonomic injuries differentiate this standard from other more limited and easily diagnosable safety hazards and previous comments cannot be used as evidence of employee fear of reporting *ergonomic* injuries.

OSHA also asserts that WRP is necessary where employer action is triggered by an employee's reporting of an MSD. It explains that employers will not have to implement certain aspects of an ergonomics program until a covered MSD is reported. OSHA even suggests that this incident based trigger creates an incentive for *employers* to *discourage*

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[45] International Union, et al. v Pendergrass, 878 F.2d 389,400 (D.C.Cir. 1989).

[46] "The [WRP] section of the proposed ergonomic regulation significantly changes the structure and format of providing compensation for injured employees and needs to be **significantly** changed to reduce the cost and burden on employers. This section...includes "make whole" provisions that are contrary to existing workers' compensation rules within South Carolina and other states. Currently, when an employee is injured at work and has to take time away from work due to the injury, the employee receives about two thirds of the state average wage while he/she is recovering after being out for 5 days. The proposed ergonomic regulation mandates that employers make up the difference from what workers' compensation insurance provides the employee beginning the **first** day out from work. This is a potentially **major** change that could **drastically impact costs** for employers and also insurance carriers. While this improved benefit in the proposed ergonomic regulation is well intended to assist the injured employee, it is flawed for several reasons. First, it singles out this type of injury (WMSD's) from other types of injuries, such as burns or lacerations, for improved and different compensation while recovering. Second, while making the employee whole" (even for the **first** day out due to the injury) has the advantage of being humanistic, it ignores the downside of providing [little] **financial incentive ... for the employee to return** to work as soon as is medically possible. This...would tend to significantly lengthen the time away from work for the employee and thereby increase the real cost to the employer in unproductive pay and possibly in temporary replacement labor." Written comments submitted by Charles Martin, Bommer Industries, Inc. Landrum, S.C., p.5.

employees from reporting MSDs. This presumption ignores what the small entity representatives told the panel – small employers want happy and healthy employees. The way in which OSHA has crafted this provision **presupposes that an employer has no motivation whatsoever to have an MSD-free workplace**. The employer's incentive to provide this MSD free workplace is to avoid the full cost of the program. A costly WRP provision is not needed in order to motivate an employer to protect its employees. If a natural motivation does not exist on behalf of an unusual employer, the existence of a federal ergonomics standard which imposes penalties and costs associated with it once an employee reports an MSD, is quite a significant incentive for that employer to maintain an MSD-safe workplace. Further, any indication that employers were preventing or discouraging employees from reporting MSDs would be a violation of the standard for those who have manufacturing and manual handling jobs.[47]

Finally, with the enormous amount of affected businesses and SIC codes involved, **OSHA should attempt to mitigate any small business costs of the ergonomics program standard that aren't absolutely necessary** for the success of the program. Even OSHA admits that there is a "high level of litigation associated with these claims" and that the "litigation may drag on for years."[48] Instead of including WRP as a part of an ergonomics program standard, OSHA should aid the employer in educating employees on MSD hazards. With management leadership and employee education, employees will feel free to report MSDs and employers would not be burdened with a costly and unnecessary provision. Advocacy does not deny that early reporting of injuries is important, but OSHA should encourage the *employe*r to devise an incentive program that will work for their employees, not mandate a costly incentive for employees to increase their reporting of MSDs.

V. Viable Alternatives Exist

Although OSHA's proposal details alternatives to the ergonomics program standard and comments on why they were not chosen, Advocacy believes **viable alternatives to the proposal *do* exist which should be re-considered** along with the numerous comments on this regulation. If there are other less burdensome ways of accomplishing OSHA's policy goal of reducing the number of MSD injuries suffered by employees, then the agency must do more than just find reasons why it is not the preferred approach. The Regulatory Flexibility Act (RFA) requires an agency to review and discuss each significant alternative to the proposed rule which will minimize any economic impact of the rule on small entities. Some of the more realistic and feasible alternatives were not fully explored in the proposal as viable options.[49] OSHA is not adhering to the

[47] OSHA could devise a rule for the rest of the general industry which made the discouraging of employees from reporting MSDs a violation. This would apply to those employers in general industry who had not had any reportable MSDs. In this way, employers would provide an MSD-free workplace because they also have the incentive of avoiding an OSHA fine. The WRP provision, following OSHA's argument, would then no longer be necessary.

[48] Fed. Reg. at p. 65850.

[49] OSHA listed 22 alternatives in the proposal that 6 main topics: no ergo rule (1-22); changing coverage of the rule (2-3); varying triggers (4-11); WRP alternatives (12-16); varying scope (17-20); and phased implementation (21).

Regulatory Flexibility Act if it merely provides "minimal treatment to [the] more realistic and constructive alternatives…."[50]

A. Non-Regulatory Guidance and Outreach

The declining number of MSD injuries coupled with a regulatory proposal expecting to cost businesses billions of dollars on top of an existing regulatory burden, logically leads to **consideration of a "no rule" alternative**. Small entity representatives urged the panel to consider an intensive guidance and outreach program designed to address ergonomics hazards in the workplace, instead of another costly federal mandate. Employers asked for assistance in protecting their workers – a helping hand instead of a directive.

OSHA claims that it has made voluntary adoption of ergonomics programs a cornerstone of its prevention efforts for years, using regional ergonomics coordinators, publishing a series of information booklets, holding ergonomic conferences and issuing guidelines for the meatpacking industry in 1990. However, OSHA states that these efforts have not been enough. Nevertheless, the Bureau of Labor Statistics reported **declining MSD injuries for the 4th year in a row**; the lowest since it began tracking these figures in 1970.[51] These declining figures are an example of what can occur without federal regulation. Even OSHA admits that recent awareness of the importance of ergonomic safety in the workplace combined with OSHA outreach has resulted in "thousands of employers and employees receiving the benefits of ergonomics programs,"[52]

OSHA has indicated that "ergonomics programs are one of the best ways to lower workers' compensation costs for small businesses over the long run,...[yet]...the need for ergonomics programs may not come to the attention of busy small employers as often as is the case for larger employers."[53] This is precisely why **OSHA needs to embark upon a national campaign to educate employers about the need for and value of ergonomics programs.** Those that have heard are listening and establishing programs. Despite OSHA's previous outreach efforts, many businesses are unaware even that a potential federal mandate is looming on the horizon. Advocacy urges OSHA to reconsider this important option. A national ergonomic safety campaign combined with detailed industry checklists, substantial guidance assistance and small business outreach would significantly impact the remaining MSD injury problem. (4% of the total number of injuries and illnesses.)[54]

B. Exempt Low Hazard Industries

The panel process also revealed another important option that was discussed by small entity representatives and that OSHA briefly discussed in the proposal. Advocacy urges

[50] Southern Offshore Fishing v. Daley, on remand, slip opinion p.5.
[51] Bureau of Labor Statistics, U.S. Department of Labor, December 1999, Table: Nonfatal occupational illnesses by category of illness, private industry, 1994-1998; Disorders associated with repeated trauma.
[52] Fed. Reg. at p. 66043.
[53] Fed. Reg. at p.66044.
[54] *See* footnote 50.

OSHA to revisit this potential alternative of exempting low hazard industries and/or firms from the proposed ergonomics program standard. OSHA should address and publish for public comment, whether it is possible to reveal which industries have the highest levels of MSD injury rates and at what level a potential cutoff of rule coverage would produce the most effective decline in MSD injury levels. In this way, many small businesses in industries that do not experience a high level of MSDs would continue to be responsible for an MSD free workplace under the general duty clause, but would not be subject to a costly OSHA regulation.

C. Small Business Exemption to the WRP provision

As recommended by the Small Business Advocacy Review panel and for the reasons stated in Section IV(d) above, OSHA should **reconsider exempting small businesses from the WRP provision of the proposed standard.** This can be done in a manner similar to the special exemption that was carved out for small business in the Methelyne Choloride rule. In that rule a small business has some relief from the high costs of the WRP type requirements. If an employer already has an employee on paid leave under the medical removal provisions of the Methelyne Chloride rule, and the employer can show that a second employee on such leave would economically detrimental to the business, the employer has the option of avoiding this burden.

As stated previously, many small employers are "concerned that the **costs for [WRP] could seriously harm [their] business**."[55] They have stated that it would "significantly add costs to [their] operation[s] and would not reduce WMSDs any further."[56] The panel heard small entities warn that "further regulations would only cause an excessive economic and administrative burden."[57] For all of these important reasons Advocacy feels it is important for OSHA to reconsider exempting small business from the WRP provision of the standard and easing the regulatory burden upon them.

VI. Conclusion

Advocacy is aware of the difficult challenge which OSHA's faces in its mission to protect employees from hazards in the workplace. The Regulatory Flexibility Act mandates that agencies must evaluate realistic options that help them accomplish their mission without placing an undue regulatory burden on small businesses. The changes to the current ergonomics proposal reflect an effort on behalf of OSHA to take some concerns of small business into account. However they do not go far enough in relieving unnecessary burdens on small employers in the face of alternatives that are equally effective in addressing MSD injuries.

That said, OSHA's current proposal remains troubling for the millions of small businesses that will be subject to the standard. The provisions mentioned in this comment, as well as the important potential alternatives to the proposal should be re-

[55] Written comments by Troy Stentz, Somnos Laboratories, Lincoln, NE, p. 4.
[56] Written comments by David Mittlefehldt, Prior Aviation Service, Inc., Buffalo, NY; p. 7.
[57] *Id.*

examined to ensure they are structured so as to be the least burdensome on small business, while accomplishing the objective of the standard. The proposal must be revised to reflect more accurately the cost impact upon small business, by including the omitted costs highlighted in section III above. (See Also Appendix A). Until an accurate picture of the economic impact upon small business is determined, OSHA should not move forward with this regulation. As the panel heard from small entity representatives, a rush to move forward with such a large and all encompassing rule that does not indicate the true effect it will have on small business, "could potentially negatively impact the factors that are currently resulting in the decrease of MSDs in the workplace over the past [four] years,"[58] as well as negatively impact many businesses and their industries.

OSHA should examine the reasons for the declining MSD rate. By focusing on regulating millions of businesses instead of the reasons for the decline in MSDs, it is hard for small businesses to know *what works* in the world of ergonomic hazard prevention and control, and *why* it works. Small businesses are not experts in the field of ergonomic hazards and do not have the knowledge to determine what the best answers are to these problems. OSHA should focus its attention first on the businesses where the greatest incidence of MSDs occur, allowing the market and technology to provide some of these answers, and later phase-in a compliance program, if needed, for small businesses that is less costly and burdensome to small employers.

[58] Written comments by Janet Kerley, p.1.

APPENDIX A

February 25, 2000

MEMORANDUM

FROM: Allen C. Basala
Senior Regulatory Impact Economist and Policy Advisor
Office of Advocacy
Small Business Administration

SUBJECT: Comments on OSHA's "Summary of the Preliminary Economic Analysis…" of the Impact of the Ergonomics Rule, published for public comment in the Federal Register of November 23, 1999. (Full text of the "Preliminary Economic Analysis" was made available in the public docket and is also reviewed herein.)

This memorandum focuses primarily on

- Chapter VII of OSHA's Preliminary Economic Analysis (both the summary and the full text of the analysis), which chapter is entitled "Economic Impacts and Initial Regulatory Flexibility Analysis; and
- 29 CFR Part 1910-Ergonomics Program; Proposed Rule, Federal Register, November 23, 1999.

Introduction

OSHA states that material in Chapter VII builds upon information in Chapter VI which addresses the economic feasibility of the rule. It is also clear that conclusions in Chapter VII are based on estimates as to "Costs of Compliance" discussed in Chapter V of OSHA's Preliminary Analysis. Thus, before addressing data in Chapter VII, some preliminary comments are warranted.

There is no explanation provided in Chapters V or VI as to:

- why certain costs were not included and what the justification is for the level of costs relied on by OSHA in determining costs of compliance and feasibility;
- why the analysis is based on *averages* without explaining that averages tend to conceal the degree and extent of vulnerability within industry sectors or without addressing the issue that averages may, in fact, hide the true impact on the competitive structure of various industry sectors; nor
- why known arguments in opposition to OSHA's feasibility and cost conclusions are not fully addressed.

REVIEW OF
OSHA's PRELIMINARY ECONOMIC AND INITIAL REGULATORY FLEXIBILITY ANALYSIS

The following addresses what I believe are the weaknesses in OSHA's "Economic Impacts and Initial Regulatory Flexibility Analysis," published for public comment with the proposed rule.

Cost Data Assessments

Costs are addressed in Chapters V and VI but in greater detail in Chapter VII. The issues here are twofold:

- why certain costs were not included in OSHA's cost calculations and
- why higher cost estimates provided by the small entities were not refuted to justify OSHA's reliance on the estimates provided by an ergonomist.

To illustrate:

- **Program Length Costs Understated.** "The analysis assumes that employers will continue to implement full programs for two years (rather than the three years required by the proposed standard)." *OSHA, Preliminary Economic Assessment, Chapter V, Page 2.*
- **Costs to Risk Averse Firms Not Estimated.** "OSHA's analysis does not take into consideration the possibility that some firms may do more than is required by the standard." *OSHA, Preliminary Economic Assessment, Chapter V, Page 2.*

- **Costs Associated With Quick Fix Option Not Estimated.** "OSHA estimates that employers who are able to use the quick fix option (i.e. employers whose workplaces contain 25% of all problem jobs) will not incur costs for employee training or for program evaluation for those jobs fixed through the quick fix option." *OSHA, Preliminary Economic Assessment, Chapter V, Page 2.*

  However, elsewhere in the analysis OSHA states: "Firms with fewer than 10 employees are not required by the proposed standard to keep any records unless they avail themselves of the rule's quick fix option." *OSHA Preliminary Analysis, Chapter VI, Page 10.*

  - **Cost Estimates for the Life of the Rule are Pegged at Fixed 1996 levels.** "The analysis does not account for any changes in the economy overtime, possible adjustments in the demand and supply of goods, changes in production methods, investment effects or macro-economic effects of the standard." *OSHA Preliminary Economic Analysis, Chapter V, Page. 2.*

    Admittedly, such estimates are difficult but not impossible. The Department of Energy, the Department of Transportation, the Environmental Protection Agency, the Council of Economic Advisors, and the Congressional Budget

Office develop and use forecasts of changes in the economy over time to assess the impact of federal regulations and programs.

Other Cost Issues

Familiarization Costs Incurred in Reviewing Standard to Determine Applicability and Scope of Responsibilities. The small entities consulted by the panel estimated this cost at 30-40 hours. The ergonomist on whom OSHA relied estimated this cost at 1 hour. The reality is somewhere in between when one considers that it is most unlikely that one could read a 50 page rule in 1 hour, let alone understand it. Admittedly, a small percentage of small firms have been following development of this rule for some time and may in fact be familiar with some of its requirements. In the end, however, it will be the *final* rule with which they will have to become familiar. And there are millions of small firms subject to the rule that will not be familiar with it at all - that do not have in-house counsel or in-house safety experts - that will require more than 1 hour to familiarize themselves with it. This is particularly true if OSHA's assumption of 100% compliance with the rule is to be a reality. It is not unrealistic to conclude that OSHA's familiarization cost estimates are underestimated, probably significantly.

Costs of Investigating Whether an MSD or Persistent Symptoms are Covered by the Standard. OSHA estimates that the cost of this activity will involve 0.25 hours (15 minutes) of managerial time and 0.25 hours of employee time per recordable MSD. OSHA provides information on the anticipated preliminary increase to be expected in reported MSDs, citing data from a 1997 report of the National Institute of Occupational Safety and Health (NIOSH). While there is an expected increase, the increase is also expected to decline. There will be costs associated with this but the costs are expected to decline. Moreover, the costs in clearly identifiable MSD cases are likely to be low – but is 15 minutes even realistic in such instances?

Finally, the analysis does not take into account the more likely sustained costs of assessing applicability of the rule where there is ambiguity regarding what is or is not covered and the potential for a lot of close calls.

OSHA has recognized that certain MSD and persistent symptom determinations are not necessarily easy. OSHA has therefore promised to provide an expert system software to regulated entities to help facilitate the determination process. However, the software is not yet developed. Until then, small entities will have to incur more than 15 minutes of managerial costs in the more difficult to assess MSD situations.

Costs for Specialized Ergonomics Expertise. Bottlenecks result from an increase in demand for the services of ergonomists and other necessary components of 100% compliance in the face of upward sloping supply curves for these components. Under these conditions, the result of a marked increase in demand is an increase in costs for delivering the ergonomists services and the other necessary components that 100% compliance requires. This problem is exacerbated when the lead time between rule

finalization and full program implementation is not distributed evenly over the 10-year period, but is skewed toward the vary early years of the program.

But, without a comparison of the demand increase for ergonomists and other critical factors relative to the currently available supply, the exact extent of the upward pressure in prices and consequently, the cost of the rule is unknown.

Cost to Fix Problem Jobs Understated. OSHA relied on one ergonomist who estimated that 50% of the problem jobs can be fixed in house by someone with relatively little background in ergonomics; 35% can be fixed trained ergonomics program manager; and, 15% of all problem jobs will require outside expertise. These percentages were then applied across the spectrum of establishment sizes and industry types.

There is substantial variability in the estimated cost to fix problem jobs amongst ergonomic experts. "…the control cost estimates made by individual ergonomists varied substantially for specific occupational groups.", *OSHA Preliminary Economic Assessment, Chapter V, Page 13*. Even the average cost estimates provided by the OSHA panel of expert ergonomists were quite variable. Elsewhere, on the same page, OSHA noted "…the average estimates were within 31 percent of one another." That variability in cost estimates amongst the various occupation groups is not reflected in the cost analysis.

Labor Saving Offsets Applied Too Broadly. OSHA applies labor savings offsets to the *average* costs of compliance in order to determine the estimated average net cost of compliance. Reliance on *averages* in this instance distorts the expected compliance cost for individual occupational groups.

For example, OSHA's expert ergonmics panel had concerns about how labor savings were calculated. The experts only identified labor savings for high-tech, high cost control interventions needed to correct some of the problem jobs. These labor savings calculations are appropriate to consider but only to offset the costs of compliance for job fixes which require a high-tech solution—not to offset compliance costs in other job fix interventions. OSHA heeded the panel's concern to some extent by not applying the absolute estimate of cost savings for all job fixes. Instead, OSHA applied the ratio of cost to labor savings for high tech solutions to all types of job fixes. However, there is no evidence provided to suggest that labor savings would accrue from moderate and low-tech job fixes. The application of labor savings cost offsets for all job fixes is especially problematic given that OSHA's ergonomics expert estimated that only 15% of the job fixes would require outside expertise.

Estimated Costs Do Not Reflect Other Regulatory Requirements. The proposed ergonomics rule will not be implemented in a vacuum. Regulated entities will have to behave in a manner consistent with full compliance with the yet to be issued general worker health and safety provisions. The regulated entities will face full compliance with those rules in the context of changing regulatory requirements and priorities on the part of State and Local occupation safety and health authorities. At the

same time regulated entities are face those challenges, they cannot ignore other emerging regulatory requirements from other Federal Agencies

Assessment of the Economic Impact Analysis

The economic impact assessment analysis should answer questions regarding the price, output, and employment consequences of a regulatory proposal.

Framework and Treatment of Data Deficient. Price and output adjustments, properly modeled, can provide insights regarding the economic feasibility of the rule in terms of the competitive structure of the affected industries and the viability of small entities. Such assessments are conducted in addressing the requirements of the Regulatory Flexibility Act.

However, there are a variety of shortcomings in OSHA's preliminary economic impact analysis for industry sectors in general and small businesses in particular that limit support for OSHA's findings regarding economic impact.

Because OSHA's preliminary economic assessment uses averages, it cannot reflect the increases in marginal cost for the regulated establishments. Hence, the degree of the supply curve shift and concomitant quantity adjustments and closures cannot be credibly predicted. Examples regarding OSHA's use of averages are noted below.

- **Differences in Cost within and Among Sectors Suppressed by Using Averages in the Costing Assumptions.** First, OSHA does reflect the differences in establishment size and job categories within and among industries in some of its costing. This is a positive feature of the analysis.

  However, the use of averages in the costing algorithms suppresses the variability in costs within and among affected industries. Examples where averages are used include the compliance cost to labor savings ratio, the percent of job fixes that require the use of an ergonomist, and the employee turnover rate. The use of these averages waters down the cost differences within and among affected economic sectors. These absolute and relative cost differences are necessary ingredients in the economic impact assessment.

- **Within Industry Baseline Profit and Revenue Conditions Obscured by the Use of Averages.** Second, OSHA states that the analysis has been done on an establishment basis on page 5 of Chapter VI. However, "OSHA assumes that the establishments falling within the scope of the proposed standard had the same average sales and profits as other establishments in their industries." *OSHA, Chapter VI, Page 6.*

  OSHA believes this approach is plausible because OSHA assumes no difference between the process economics of firms that do not have covered

MSDs and those that do. There is no documentation to support this position this assumption.

- **Large Firms With Small Establishments are Not Distinguished From Small Firms With Small Establishments.** Because of economies of scale, larger firms are likely to incur lower costs to bring their small establishments into compliance with OSHA's proposed ergonomics standard. On the other hand, small firms are unable to realize these economies of scale and will likely incur higher compliance costs.

- **Differences in Potential Impacts Obscured by the Use of Cost Averages for Industries.** On page 1 of *Chapter VI, OSHA* states that "… the estimates of per-establishment annualized compliance costs are compared with per-establishment revenues…and profit rates." However, what is actually done appears to be somewhat different.

  For instance, on the same page, OSHA notes that "Table VI-1 shows annualized compliance costs, revenues, and profits … for establishments in all affected industries, as well as compliance costs as a percentage of revenues and profits." But, that table which is entitled "Estimated Worst-Case Economic Impacts of the Proposed Ergonomics Standard by 3-digit SIC" is just broad industry based averages. The title of the table is misleading because it does not represent worst case impacts.

  According to columns 1 and 2 of the table, there is a comparison of annualized compliance costs for all establishments (those affected by the rule and those who are not) with the revenues for all establishments (those affected by the rule and those who are not). In column 7, costs are provided on an establishment basis. However, there is one cost for each multi-establishment industry. The title of column 7 is average cost per establishment. Hence, the marginal cost impacts of this rule across establishments within affected industries is obscured by the use of average cost, process economics, and impact assessment ratios.

- **Impacts on Small Businesses Obscured by the Use of Averages**. The Table VII-2 is improved in the sense that it focuses on affected firms meeting SBA's size criteria. However, what are presented are the average impacts of average costs for the average small firm meeting the small business size criteria. In cases like the landscape and horticultural services industry, this is an average generated across 22, 191 firms! In many cases, there is a wide disparity in employment size within the small business category. The result of this approach is an understatement of the variability in cost across small businesses within specific industries. The consequence is an understatement of the marginal cost changes and potential impacts.

Economic Impact Argument. Sometimes qualitative arguments provide a way to support a conclusion regarding economic impact. However, some of the qualitative arguments used by OSHA to support economic impact conclusions are questionable. Two such examples are provided below.

- **OSHA Arguments Regarding Consequences of Profit Declines Not Supportable.** On page 3 of Chapter VI, OSHA states "a profit decline of 10 percent …..would mean that a firm with $10,000 in profits would now have $9,000 in profits. A profit decline of this magnitude would have little effect on most firms and would be, for example, much less of a decline than a firm would expect to experience in a recession year. Normal year-to-year and within industry variation of profits are greater than 10 percent. A profit decline of this magnitude would have little effect on most firms."

  As noted above, OSHA believes the declines in profits are within the variability of profits overtime. However, the variability that OSHA alleges was reflected in a market setting unencumbered by the proposed OSHA regulations and their associated costs. Clearly, the ability of firms to adjust through the good times and bad will be impaired by the proposed regulations. With the prospects for declines in expected profit rates in the long run, some firms will depart, downsize, close their domestic facilities and look for a return to normal profits elsewhere.

  To some as long as profits are positive, firms will remain economically viable. However, embedded in the micro-economic analytical framework that OSHA uses is the concept of normal profits, not accounting profits. Normal profits are based on opportunity cost for the entrepreneurial and/or managerial resources: what could they earn in their next best alternative. The normal profit concept is appropriate for economic impact assessment use the supply/demand framework that OSHA discusses.

  Furthermore, accounting profits sometimes send the wrong signals. That is positive accounting profits do not mean that a firm is economically viable. Entrepreneurial and managerial resources that do not earn their normal profits or opportunity cost go elsewhere. And, without such resources firms are no long economically viable entities.

  For example, lets assume a government economist leaves his salaried position of $50,000 annual and acquires a small business. The economist ran the numbers ahead of time and projected that expected annual earnings would be $50,000 from the business enterprise. But, after acquiring the enterprise, the economist finds out about the proposed ergonomics rule. The former government economist gets some advice from an expert ergonomist in terms of what the rule means, does much reading, runs the numbers and finds out that the expected earnings when complying with the regulation will be $45,000. To the accountant, this is still a profitable enterprise. However, to

the economist, the enterprise is a loser. This is because the economist could make $50,000 elsewhere. By staying with the enterprise for the long hall, the result is a loss of $5,000 annually!

With such conditions, in the long run, the business establishment owner will take advantage of other opportunities, those that provide at least a normal level of profit. From the perspective of the government economist, the establishment is not economically viable in the long run.

- **OSHA's Finding Regarding Economic Feasibility is not Supported by An Appropriate Analytical Framework or Set of Data Inputs**. On page 4 of Chapter VI and elsewhere, OSHA suggests that only relatively small price increases are needed to offset the loss in profits for average establishments in some industries. OSHA uses the upper and lower end of the theoretical direct price elasticity of demand range and the ADA v. Secretary of Labor court case to conclude there will be some price increases and some profit reductions. OSHA goes on to assert that the "viability of affected firms will not be adversely impacted." In addition, they state "the proposed standard is therefore economically feasible for all affected industries. OSHA has shown that ….. the standard will not threaten the existence or competitive structure of any affected industry."

  However, the fact that there will be some *average* price increases and some *average* profit reductions are not sufficient by themselves to make a determination of economic feasibility in terms of the existence or competitive structure of any affected industry. What really matters in terms of economic feasibility and the resulting economic structure of the industry is how supply is shifted within the affected industry and how many and what type of firms remain economically viable and how many close or reduce output.

  Unfortunately, the methodology and data inputs of OSHA's analysis do not provide answers to those critical questions. Besides all the other aforementioned limitations, OSHA fails to distinguish between the demand conditions facing the regulated establishment and the demand conditions for the industry as a whole. For example the market demand for wheat is price inelastic. However, the demand curve facing the wheat producer is extremely price elastic.

  Furthermore, OSHA's proposed rule directly impacts establishments in related markets. Some firms will find that the cost of their raw materials will go up because the ergonomics rule applies to their suppliers. Those same firms not only have to increase expenditures to comply with the proposed ergonomics rule at their establishments but now have to pay more for raw materials. In addition, those same firms may produce an intermediate good and have to confront a buyer who also has additional expenditures to comply with the proposed ergonomics rule.

When these conditions are present and regulatory cost increases are non-trivial, a general equilibrium or partial equilibrium multi-market model approach is an important complement to a valid comparative static single market framework industry.

This following section addresses the issues of baseline, effectiveness measure, and the set of cost-effective alternatives.

Baseline

In determining the baseline, the analyst answers the question what would happen "but for" the proposed rule and other alternatives. The answer to this question is the foundation for the initial regulatory flexibility analysis.

BLS Data Show that MSD Injuries are Declining. According to BLS, the number of occupational injuries involving time away from work due to MSD type injuries or illnesses (i.e. sprains, strains, carpal tunnel syndrome, and tendonitis) declined over the 1993 through 1997 period. Sprains and strains numbers declined by 16.7% for the period. The corresponding average annual rate of decline was 4.5%. The associated declines over the 4-year period in the carpal tunnel syndrome and tendonitis categories are 28.9% and 28.0%, respectively. The corresponding average annual reductions are 8.1% and 7.9%. The Bureau of Labor Statistics, U.S. Department of Labor, *Safety and Health Statistics, Lost-worktime Injuries and Illnesses: Characteristics and Resulting Time Away From Work, 1997*, USDL 99-102, April 22, 1999, Table B, page 2.

In the absence of any further regulations and by maintaining OSHA's existing programs, the work loss day related MSDs were reduced each and every year during the 1993 through 1997 period. This occurred in a period characterized by marked increases in employment with greater population at risk for possible MSD injuries.

Department of Labor Reports the Decline. "Workplace injury and illness rates declined for the sixth year in a row. That's good news for American workers and for American employers. Since 1973 occupational injury and illness rates have decreased 40 percent, and more than half of that decline occurred since 1993…….

Further, there's been a drop in actual injuries, too. Employment rose 3 percent in 1998, yet 200,000 fewer workers got hurt or sick on the job than in 1997. Employers and workers are making job safety and health the top priority it has to be……" The U.S. Department of Labor, Office of Public Affairs, *Statement by Labor Secretary Herman on 1998 Injury and Illness Rates*, 12/16/99

The message here appears to be that the current system is making substantial progress in the absence of further regulations in the ergonomics area.

Additional Bureau of Labor Statistics Data on Declines in MSD Related Lost Work Days. Data from the Bureau came out the same day as the Secretary of Labor's

statement of 12/16/99. The data tells the same story using graphs and detailed tabular statistics. The Bureau of Labor Statistics information shows the decline in work loss day related MSDs *to be continuing*. Bureau of Labor Statistics, U.S. Department of Labor, *Workplace Injuries and Illnesses in 1998,* December 16, 1999.

Furthermore, BLS data collection methods address OSHA's concerns about the possible under reporting of MSDs. "…BLS has implemented quality assurance procedures to reduce nonsampling error in the survey, including a rigorous training program for State coders and a continuing effort to encourage survey participants to respond fully and accurately to all survey elements." Bureau of Labor, Statistics, U.S. Department of Labor, *Lost-worktime Injuries and Illnesses: Characteristics and Resulting Time Away From Work, 1997.* April 22, 1999.

Forecasters often predict the rate of progress in the future to be similar to what has been seen in the recent past. Taking the trend from 1993 to 1997 in MSD declines and using it to project the relevant MSDs for 1998, confirms the continuing downward trend. Hence, an approach to baseline that reflects this continuing downward trend has empirical support.

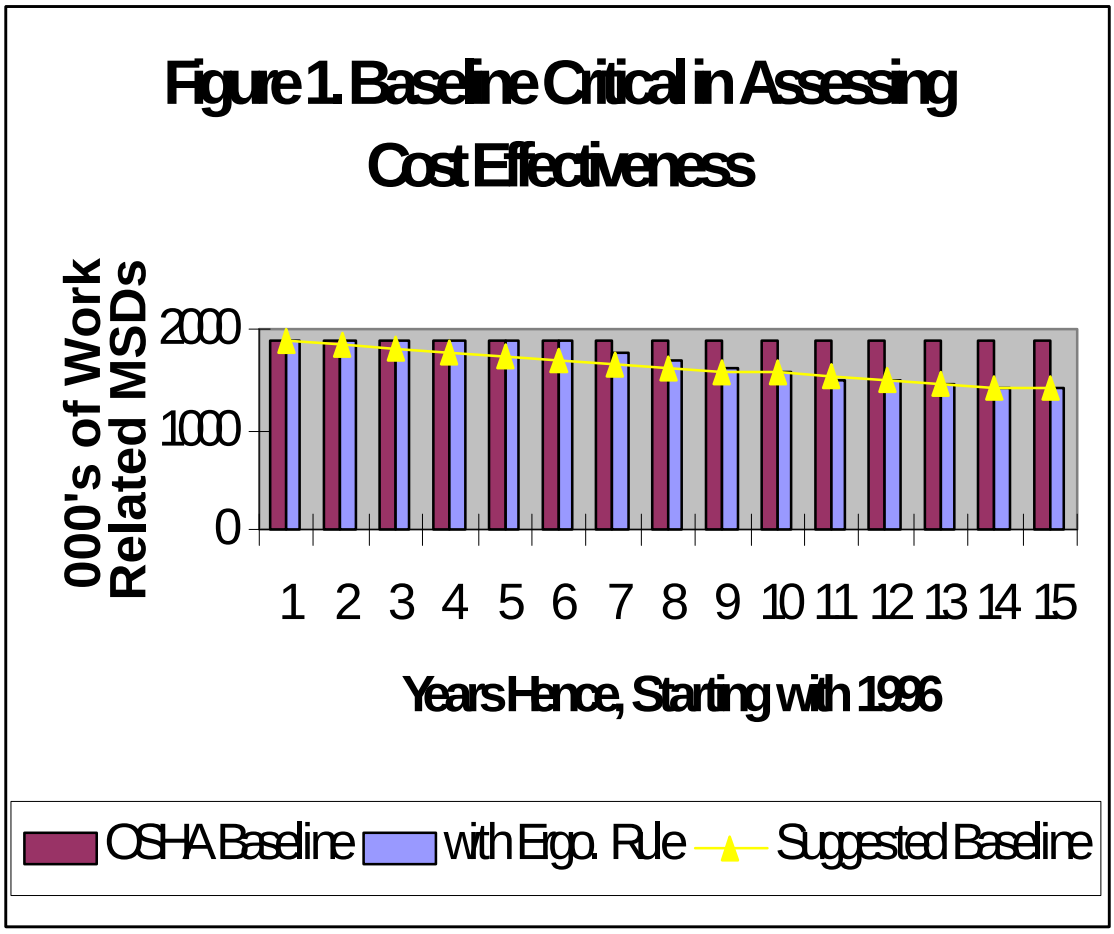
With Plausible Baseline Assumptions, The Work Related MSD Reductions That OSHA Ascribes to the Proposed Rule Can Be Achieved Without the Proposed Rule. OSHA estimated the number of work related MSDs by multiplying the Bureau of Labor Statistics information on 1996 work loss days by 3. It is from this OSHA baseline that the effectiveness of the rule is judged.

A baseline extending the downward trend in work related MSDs observed in the BLS data would result in an average annual reduction in those MSDs of more than 3% per year. However, a conservative progress rate of 2.1% per year reduction in work related MSDs from 1996 10 2010 achieves the same result as OSHA's proposed rule.

This conservative progress rate is much lower than those observed for strains and sprains, carpal tunnel, and tendonitis over the 1993 to 1997 period. Those respective rates are 4.5, 8.1, and 7.9% per year.

The use of a baseline reflecting a 2.1% per year rate of progress in declining levels of work related MSDsi is not to suggest that there is no need for an OSHA promulgated ergonomics rule. However, it does suggest that a starting point for assessing the need for and effectiveness of any ergonomics rule is a baseline supported by empirical data provided by the Department of Labor's Bureau of Labor Statistics. Using that fundamental data and projecting MSD reductions at a reasonable progress rate suggests that a "no proposed rule" option should be considered.

OSHA's baseline, the results which OSHA anticipates from its proposed ergonomics rule, and the modest progress rate baseline suggested here are presented on Figure 1. Figure 1 is entitled: Baseline Critical in Assessing Cost Effectiveness



Effectiveness Measure

MSDs are not created equally. They vary in frequency and duration within and across MSD types. Some MSDs result in a restricted workday. While other MSDs result in a lost work day. Some MSDs result in one day of lost work while others result in many days of lost work. In addition, an upper extremity MSD is not the same as a lower extremity MSD. Furthermore, Carpal Tunnel Syndrome is not the same as a lower back strain. Capturing this variability across MSDs can be done using effectiveness indexes such as quality adjusted disability days.

Effectiveness Index Problems Can Be Overcome. Researchers and economists in the human health area have used such approaches to prioritize research and assess program effectiveness. Experts in this field are found at many universities and analytical think tanks. Once such center is at Harvard University's School of Public Health: the Harvard Center for Risk Analysis. In addition, members of the National Academy of Public Administration have provided guidance to other federal health agencies on the value of risk based priority setting and decision making.

Data from BLS, review of salient applications, and support of recognized experts can also help accomplish this objective.

The Coverage of Smaller Establishments on Grounds of Significant Baseline Risk When the Average Pre and Post Regulation Risk for all of the Covered Establishments is Much Higher is Problematic. Use of a Meaningful Index and Acceptable Residual Risk Level Targets May Help Remedy This Deficiency in the Proposed Regulation. When one treats a varied set of MSDs as the same thing and does not assess the relative effectiveness, risk based priority setting and decision-making and cost-effective regulatory proposals are not possible.

But, OSHA defends its procedures. For example, OSHA argues in the preamble and the initial regulatory flexibility analysis (page 24) that small businesses cannot be exempt from the rule because OSHA is to protect employees from significant risk to the extent feasible.

What then is significant risk? According to OSHA, the proposed regulation will reduce MSD incident rates significantly. However, small businesses currently have MSD rates below this level.

OSHA's significant risk based, cost effective approach puts sources of significantly less risk on an equal par with more serious problems. Furthermore, it appears that the proposed regulation attempts to reduce significant risks to the extent feasible by regulating sources whose baseline risk is below that for general industry in a post regulation state. Consequently, the structure of the regulation does not appear logical from a risk-based priority setting and cost-effectiveness perspective.

Cost-effective Alternatives

There are a myriad of combinations and permutations of factors that are part of any sound ergonomics rule. OSHA has articulated many of these factors in its regulatory proposal. Examples include the scope of MSDs types, job categories, size of firms subject to the rule, minimal risk thresholds, allowed exceedances or triggers before imposing the full program, the degree of grandfathering, phasing, etc. These permutation and combinations must be mapped out distinguish alternatives which are inferior or cost-ineffective from those which are dominant or cost effective. Ad hoc specification of an alternative in a draft stage, refining that alternative prior to proposal, and using qualitative arguments to dismiss other alternatives is not *prima facie* evidence of a cost-effective regulatory proposal or an intelligible principle for cost-effectiveness based rule-making.

Illustrating this Major Deficiency. Table 1 illustrates a major deficiency in the cost-effectiveness element of the proposed rule. The Table presents information on cost and effectiveness for permutations and combinations of control possibilities.

Table 1. Hypothetical Alternatives: Measures of Cost and Effectiveness Relative to Baseline.

Alternative	Estimated Cost	Estimated Effectiveness
A	10	10
B	20	25
C	30	45
D	40	55
E*	50	55
F*	60	45
G*	70	45

Although the data in Table 1 are hypothetical, they demonstrate three facts:

1. Not all initially specified alternatives are worthy of additional consideration.
2. Dismissing alternatives without knowing the cost and effectiveness can mean discarding a preferred, cost-effective alternative.
3. More than one alternative can be cost-effective.

For example, Alternatives E*, F*, and G* are inferior. They are not on the least cost envelope of cost-effective alternatives. If cost-effectiveness is a rule setting criterion, they should not be given further consideration. They cost more and deliver either the same or less than a dominant regulatory, Alternative C. However, Alternatives A, B, and C are all cost-effective. If cost-effectiveness is a criterion for rule making, they should be considered further.

In terms of the proposed ergonomics rule, OSHA argues that the proposal is cost-effective because it costs less than the initial draft rule and provides about the same amount of benefits. But, in terms of Table 1, OSHA's movement from the initial draft to the present proposal may merely represent a movement from one inferior or cost-ineffective position to another!

OSHA's view is consistent with the belief that the initial draft represented a movement from Alternative E* to Alternative D; or, a movement from a place off the least cost envelope to a place on the envelope. However, given the issues noted in the previous sections and the fact that there was no clear procedure for generating permutations and combinations and identifying less costly and equally effective alternatives as required by the Regulatory Flexibility Act, OSHA's Initial Regulatory Flexibility Analysis is deficient.

More Disclosure Regarding the Cost-Effectiveness of Alternatives Could Facilitate More Meaningful Public Comment. In the present regulatory package, OSHA articulates a myriad of proposals and then proceeds to discard them without the

supporting cost-effectiveness analysis. OSHA nevertheless asks for comment on various aspects of the rule and the alternatives.

> Stakeholders could be much more focused and helpful if the cost effectiveness aspects of the proposed rule and the alternatives were clearly and validly portrayed.

The Principles are Not New; The Tools are Available. The principles of cost-effectiveness analysis were not invented for this rule. Such principles have been around for decades and have been recognized in Executive Order 12866. Applied studies are not limited to academia but are carried out by many Federal Agencies.